

Abstract

An apparatus and method for controlling temperature in a boil-off gas in a liquefaction plant prior to compression, wherein boil-off gas originating from an LNG storage tank is compressed and at least partially condensed, and wherein said condensed boil-off gas (LNG) is being returned to the storage tank. A heat exchanger (20) is connected to the the boil-off gas feed line upstream of the compressor (10), and a first conduit (22) fluidly connects the line for returning LNG to the storage tank and the heat exchanger (20). A second conduit (26) fluidly connects the heat exchanger (20) to the boil-off gas feed line at a point upstream of said heat exchanger (20). Boil-off gas is heat exchanged against said cooler (24) prior to being fed into said compressor (10). Thus, the boil-off gas temperature is lowered downstream of said heat exchange. With the present invention, a selected temperature or range of temperatures - for example determined by the compressor characteristics - may be used as a controlling parameter for the choke valve in order to control the flow through the cooler and into the boil-off gas feed line upstream of the heat exchanger.

(Fig. 2)